CLAIMS

- 1. A method of transmitting a signal encompassing a media object comprising the steps of:
- encoding said media object into said signal for transmission over a communications network;

receiving network communication parameters related to the status of said communications network;

adapting, responsive to said step of receiving network communication parameters, said encoding step using a neural network, wherein said adapting step is at least one of:

bit rate shaping said transmission of said signal, and modifying a quantization level used for said encoding of said signal.

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- 2. The method of Claim 1, wherein said network communication parameters are:
 - A. packet fraction loss;
 - B. cumulative number of packets lost;
 - C. inter-arrival jitter; and
 - D. last sender report.
- 3. The method of Claim 2, wherein said communication parameters are received as Real Time Control Protocol system status information.

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- 4. The method of Claim 1, wherein said signal is encoded into an MPEG compatible data stream.
- 5. The method of Claim 1, wherein said media object is composed of video data.
 - 6. A method of transmitting a signal encompassing a media object comprising the steps of:

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encoding said media object into said signal for transmission over a communications network;

receiving network communication parameters related to the status of said communications network;

adapting, responsive to said step of receiving network communication parameters, said encoding step using a neural network, wherein said adapting step is at least one of:

adjusting an amount of base layer data transmitted with amount of data corresponding to an enhancement layer.

- 7. The method of Claim 6, wherein said network communication parameters are:
 - A. packet fraction loss;
 - B. cumulative number of packets lost;
 - C. inter-arrival jitter; and
 - D. last sender report.
- 8. The method of Claim 6, wherein said communication parameters are received as Real Time Control Protocol system status information.
 - 9. The method of Claim 6, wherein said signal is encoded into an MPEG compatible data stream.
- 10. The method of Claim 6, wherein said media object is composed of video data.